

WHAT IS CLAIMED IS:

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1 A cathode-ray tube (CRT) assembly of a projection television, comprising:
2 a CRT for creating an image;
3 a lens for magnifying said image created from said CRT and projecting said image onto a
4 screen;
5 a coupler disposed between said CRT and said lens, coupling said lens to said CRT, defining
6 a cooling liquid receptacle filled with a cooling liquid;
7 a cooling liquid pouring inlet formed one side of said coupler, providing a passage way for
pouring the cooling liquid into said cooling liquid receptacle; and
8 an oilpack connected to said cooling liquid pouring inlet, communicating said cooling liquid
9 receptacle so that a portion of the cooling liquid is contained in said oil pack when the cooling liquid
10 filled in said cooling liquid receptacle expands and said portion of the cooling liquid overflows from
11 said cooling liquid receptacle.
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2. The CRT assembly of claim 1, wherein said oilpack is made of a material having
flexibility so that the volume of a sealed inner space of said oilpack varies by the flow of the cooling
liquid into or out of said oilpack depending on the expansion and contraction of the cooling liquid.

3. The CRT assembly of claim 1, said oilpack further comprising:
a pack holder coupled to said cooling liquid pouring inlet, having a through hole

communicating both a sealed space of said oilpack and said cooling liquid receptacle of said coupler;
and

an oilpack coupling means formed on said pack holder, coupling said pack holder to said cooling liquid pouring inlet of said coupler.

4. The CRT assembly of claim 3, said oilpack coupling means including:

a protrusion formed in said cooling liquid pouring inlet of said coupler;

a guiding portion formed on said pack holder so that said protrusion is coupled to said guiding portion; and

a holding portion formed on said pack holder and disposed within said cooling liquid receptacle to tightly couple said pack holder to said coupler when said protrusion is captured within said guiding portion.

5. The CRT assembly of claim 4, said oilpack coupling means comprising:

a depression formed adjacent to said cooling liquid pouring inlet; and

a protrusion formed on said pack holder, inserted into said depression when said pack holder is tightly coupled to said coupler.

6. The CRT assembly of claim 5, said oilpack coupling means comprising an o-ring

disposed between said pack holder and said cooling liquid pouring inlet, preventing the leakage of

3 the cooling liquid.

1 7. The CRT assembly of claim 3, said pack holder comprising a supporting portion
2 being L-shaped so that said cooling liquid pouring inlet and one end portion of said pack holder form
3 an angle while the other end portion of said pack holder is coupled and parallel to said cooling liquid
4 pouring inlet.

1 8. A cathode ray tube (CRT) assembly of a projection television, comprising;
2 a CRT creating an image;
3 a lens magnifying the image produced from said CRT and projecting the image onto a screen;
4 a coupler disposed between said CRT and said lens, coupling said lens to said CRT, defining
5 a receptacle filled with a cooling liquid;
6 an inlet formed on one side of said coupler, communicating said receptacle; and
7 a pack unit coupled to said inlet, having a pack, a pack holder having a first end coupled to
8 an open portion of said pack and a second end coupled to said inlet, a through hole formed inside
9 of said pack holder and communicated with both said pack and said receptacle.

1 9. The CRT assembly of claim 8, said pack unit is detachably attached to said inlet of
2 said coupler.

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2 10. The CRT assembly of claim 8, wherein said pack is made of a flexible material and
3 includes said open portion and a closed portion accommodating a portion of said cooling liquid
4 flowed from said receptacle through said through hole.

1 11. The CRT assembly of claim 10, wherein the volume of said pack varies by the portion
2 of said cooling liquid flowed from said receptacle.

12. The CRT assembly of claim 8, wherein said first portion and said second portion of
said pack holder are perpendicular to each other.

13. The CRT assembly of claim 8, said first portion of said pack holder including a
structure for rotating said pack holder when said pack holder is connected to said inlet.

1 14. The CRT assembly of claim 8, said second portion of said pack holder comprising a
2 supporting portion and a holding portion both disposed on each opposite side of said inlet after said
3 holding portion has been inserted into said inlet.

1 15. The CRT assembly of claim 14, further comprising:

3 a protrusion forward on said inlet; and
4 said protrusion inserted into said guiding slot when said second portion is inserted into said
5 inlet.

1 16. The CRT assembly of claim 15, further comprising:
2 an axial slot of said guiding slot, said protrusion inserted into said axial slot when said
3 second portion is axially inserted into said inlet; and
4 a round slot of said guiding slot, said protrusion inserted into said round slot when said
5 second portion rotates about a center of said inlet after said second portion has been axially inserted
6 into said inlet.

1 17. The CRT assembly of claim 16, further comprising:
2 a depression formed around said inlet; and
3 a stopper formed on said second portion of said pack holder, inserted into said depression
4 after said protrusion has been inserted into said round slot.

1 18. The CRT assembly of claim 14, further comprising a ring inserted between said
2 supporting portion and said a side of said inlet to seal said inlet.

1 19. The CRT assembly of claim 14, said through hole comprising a first hole portion
2 formed inside of said first portion of said pack holder and a second hole portion formed inside of said
3 second portion of said pack holder, said first hole portion being perpendicular to said second hole
4 portion.

1 20. A cathode ray tube (CRT) assembly, comprising:
2 a CRT;
3 a lens projecting an image produced from said CRT onto a screen;
4 a coupler disposed between said CRT and said lens to couple said lens to said CRT, having
5 a receptacle filled with a cooling liquid;
6 a pack having a sealed portion and an open end;
7 a pack holder having one end detachably attached to an inlet of said coupler, having the other
8 end coupled to said open end of said pack;
9 a through hole formed on said one end and said other end of said pack holder,
10 communicating both said receptacle and an inside of said sealed portion of said pack.